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APPLICATION NO. /	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/973,266	10/09/2001	Howard N. Cannon	00-351	6180	
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James R. Smith			EXAMINER		
Caterpillar Inc. Intellectual Property Department			ILAN, RUTH		
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Peoria, IL 6162			ART UNIT PAPER NUMBER		
,			3616		
			DATE MAILED: 07/31/2003		

Please find below and/or attached an Office communication concerning this application or proceeding.

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,		Application No.	Applicant(s)			
•	OSS: - A - 4' O	09/973,266	CANNON ET AL.			
(	Offic Action Summary	Examiner	Art Unit			
		Ruth Ilan	3616			
TI Period for Re	ne MAILING DATE of this communication in the second section in the section in	on appears on the cover shet	with the c rrespondence address			
THE MAII  - Extensions after SIX (in the period of the per	TENED STATUTORY PERIOD FOR I LING DATE OF THIS COMMUNICAT of time may be available under the provisions of 37 3) MONTHS from the mailing date of this communical of for reply specified above is less than thirty (30) day of for reply is specified above, the maximum statutory eply within the set or extended period for reply will, be eceived by the Office later than three months after the ent term adjustment. See 37 CFR 1.704(b).	TON. CFR 1.136(a). In no event, however, may stion. s, a reply within the statutory minimum of the period will apply and will expire SIX (6) MG y statute, cause the application to become	a reply be timely filed  irty (30) days will be considered timely.  DNTHS from the mailing date of this communication  ABANDONED (35 U.S.C. § 133).	n.		
1)⊠ Re	esponsive to communication(s) filed o	n <u>14 April 2003</u> .				
2a) <u></u> ⊤h	is action is <b>FINAL</b> . 2b)	☑ This action is non-final.				
	nce this application is in condition for osed in accordance with the practice to of Claims			is		
4)⊠ Cla	im(s) <u>1-26</u> is/are pending in the appli	ication.				
4a)	Of the above claim(s) is/are w	ithdrawn from consideration.				
5) <u></u> Cla	im(s) is/are allowed.					
6)⊠ Cla	im(s) <u>1-26</u> is/are rejected.					
7) <u></u> Cla	im(s) is/are objected to.					
8)∏ Cla	im(s) are subject to restriction	and/or election requirement.				
Application	Papers					
9) <u></u> The	specification is objected to by the Ex	aminer.				
•	drawing(s) filed on is/are: a)	•				
·	oplicant may not request that any objection		•			
	proposed drawing correction filed on		disapproved by the Examiner.			
	approved, corrected drawings are require			•		
<i>'</i> —	oath or declaration is objected to by t	ne Examiner.				
_	er 35 U.S.C. §§ 119 and 120	famalian maianika anadan 05 H O O	0.440(=) (-1) == (0)			
	nowledgment is made of a claim for t	foreign priority under 35 U.S.C	. § 119(a)-(d) or (f).			
·	II b) Some * c) None of:	anta hace base sassiced				
	1. Certified copies of the priority documents have been received.					
	<ul><li>2. Certified copies of the priority documents have been received in Application No</li><li>3. Copies of the certified copies of the priority documents have been received in this National Stage</li></ul>					
_	application from the Internation the attached detailed Office action for	nal Bureau (PCT Rule 17.2(a))				
14)∏ Ackn	owledgment is made of a claim for do	omestic priority under 35 U.S.C	C. § 119(e) (to a provisional applicat	ion).		
	The translation of the foreign langua powledgment is made of a claim for do	• ,				
Attachment(s)						
2) 🔲 Notice of I	References Cited (PTO-892) Draftsperson's Patent Drawing Review (PTO-9 n Disclosure Statement(s) (PTO-1449) Paper I	48) 5) Notice of	v Summary (PTO-413) Paper No(s) If Informal Patent Application (PTO-152)			

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### **DETAILED ACTION**

## **Priority**

1. The Examiner acknowledges the Applicant's letter of January 9, 2002 requesting a corrected filing date. This matter is being addressed and further information will follow.

#### Election/Restrictions

2. Applicant's election without traverse of Species I, Figures 1-3b in Paper No. 4 is acknowledged. The Applicant asserts that all claims except for claim 4 reads on the elected species. The Examiner notes that claim 4 is commensurate in scope to claim 16, that is it includes a pedal that controls deceleration. It is the Examiner's position that claim 4, as broadly worded, is also generic. As such, all claims will be examined.

# Claim Objections

3. Claims 16 and 19 are objected to because of the following informalities: In claims 16, line 12, and claim 19, line 8, "adopted" should be changed to "adapted". Appropriate correction is required.

## Claim Rejections - 35 USC § 112

- 4. The following is a quotation of the first paragraph of 35 U.S.C. 112:
  - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 5. Claim 10 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one

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skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no reduction to practice of the manner in which a displacement signal from a sensor operatively coupled with the first pedal controls the jerk of the vehicle.

## **Double Patenting**

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-13 and 16-26 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over various of the claims of U.S. Patent No. 6,357,232. Although the conflicting claims are not identical, they are not patentably distinct from each other because the elements recited in claims 1-26 of the instant application are found in entirety in many of the patented claims, and as such since the instant application includes only a broader recitation of these elements, they are obvious. For example, regarding claims 1-3, 5, 6, 8, 22, 24 and 25 of the instant application, claim 7 of US 6,357, 232 teaches first and second pedals, first and second sensors, and electronic controller that uses the sensor signals to control forward and

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rearward travel based on the displacement of the first and second pedals, respectively. Regarding claims 17-19, 21 and 23 of the instant application, claims 16-19 of the patent teaches a hydrostatic transmission and the other claimed elements. Regarding claims 4, 7, 16 and 26 claim 14 of the patent teaches that the deceleration is controlled. Regarding claims 9, 13, and 20 it is old and well known in the vehicle art that electronic controllers are programmable and use mapping structures, and it would have been obvious to one having ordinary skill in the art at the time of the invention to use programming of the electronic controller of claim 7 in order to provide a pedal system that can be adapted to a variety of vehicles and uses. Regarding claims 11 and 12, claim 12 of the patent teaches selective control of a maximum speed, or cruise control. Regarding claim 10 of the instant application, claim 15 of the patent teaches control of jerk.

# Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 9. Claims 1-13 and 16-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Strashny (US 6,357,232 B1.) The applied reference has a common inventor with the

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instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. Strashny (Figure 2 and col. 5, lines 61-col. 6, line 7) teaches an operator interface system for a hydrostatic transmission system that includes first and second pedals (26, 28) and a programmable electronic controller (48) and a pair of sensors (44,46) that control forward and rearward movement of the vehicle and acceleration and deceleration (see col. 6, lines 34-38.) Regarding claim 9, the ECM is programmable and includes mapping structures (see col. 7, lines 20-30.) Additionally, jerk is controlled (see col. 6, line 48.) Regarding claims 11 and 12, as taught in col. 7, lines 30-60. Strashny teaches a maximum speed and cruise control. Regarding claims 4, 7, 16 and 26, since both of the pedals are taught to control deceleration, as broadly claimed, at least one of them does.

10. Claims 1-5, 11, 13 and 16-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Coutant et al. (US 5,553,453.) Coutant et al. teaches an operator interface system for a work machine operable for acceleration or deceleration in either a forward or reverse direction (Figure 1, element 58 teaches that the machine can go in either direction) Also taught is a first pedal 56 and an electronic controller (22) adapted to control a velocity aspect of the work machine. Also taught is sensor (see col. 4, last line, col. 5, line 1.) Regarding claims 2-4, the first pedal controls acceleration or

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deceleration (see col. 3, lines 3-24.) Regarding claim 5, the first pedal controls the forward movement of the car (if the gear is in Forward.) Regarding claim 13, the controller is programmable (see and includes mapping structures (as taught in col. 7, lines 64-69.) Regarding claim 14, a brake is operatively connected to the first pedal if the brake pedal is the first pedal. Regarding claim 11 a speed selector controls the maximum speed (60.) As taught throughout, the prime mover is a hydrostatic transmission, or continuously variable.

Claims 1, 2, 4, 5, 11, 12, 14-19, and 21-24 are rejected under 35 U.S.C. 102(b) 11. as being anticipated by Lenz (US 5,064,013.) Lenz (See Figures 9-11 and col. 9, line 34-col. 10, line 21) teaches an operator interface system for a work machine operable for acceleration or deceleration in either a forward or reverse direction (see col. 4, line 68.) Also taught is a first pedal (520, see Figure 10) and an electronic controller (switch 500) adapted to control a velocity aspect of the work machine. Also taught is a first sensor (521, 523, 524.) Regarding claims 2 and 4, the first pedal controls acceleration, and the second pedal controls deceleration Regarding claim 5, the first pedal controls the forward movement of the car. Regarding claim 11, a maximum speed selector is taught (see col. 9, lines 44-54.) Regarding claim 12, as broadly claimed the spring biased pedal is designed to spring back to the maximum velocity position, which is essentially cruise control (see col. 10, lines 66-68.) Regarding claim 14, a brake is operatively connected to the first pedal if the brake pedal is the first pedal. Regarding claim 15, the brake is actuated when the pedal goes to the "3" position (see col. 10, line 25.)

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12. Claims 1-9, 11-14, and 16-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Dreher et al. (US 4,866,622) Dreher et al. teaches an operator interface system for a work machine operable for acceleration or deceleration in either a forward or reverse direction (Figure 1, element 22) Also taught are first and second pedals (20, 21) and an electronic controller (46) adapted to control a velocity aspect of the work machine. Also taught are first and second sensors (26, 28) Regarding claims 2-4, the first pedal controls acceleration, and the second pedal controls deceleration Regarding claim 5, the first pedal controls the forward movement of the car (if the gear change is in F) Regarding claim 8, as broadly claimed, if the brake pedal is the first pedal, and the gear shift is in reverse, then the second pedal (6) controls rearward movement. Regarding claims 9 and 13, the controller is programmable and includes mapping structures (as taught in col. 7, lines 64-69) Regarding claim 14, a brake is operatively connected to the first pedal if the brake pedal is the first pedal. Regarding claim 12, also taught is a cruise control function (see col. 8, line 23-36) As taught throughout, the prime move is a hydrostatic transmission, or continuously variable. Regarding claim 25, as broadly claimed, when the shift is in reverse, the brake pedal control signal can control forward motion, that is the deceleration of the vehicle, and the accelerator pedal controls rearward motion of the vehicle.

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## Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

<sup>(</sup>a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 1-10, 12-14 and 16-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyerle (US 5,890,982.) Meyerle teaches an operator interface system for a work machine operable for acceleration or deceleration in either a forward or reverse direction (Figure 1, element 108.) Also taught are first and second pedals (6, 7) and an electronic controller (5) adapted to control a velocity aspect of the work machine. Meyerle is silent regarding the use of sensors coupled to the pedals to output displacement signals. The Examiner takes Official Notice that it is old and well known in the pedal art to include displacement sensors to interface with electronic control devices. It would have been obvious to one having ordinary skill in the art at the time of the invention to include displacement sensors with the pedals of Meyerle in order to complete the interface with the electronic controller. Regarding claims 2-4, the first pedal controls acceleration, and the second pedal controls deceleration (see col. 3, lines 30-47.) Regarding claim 5, the first pedal controls the forward movement of the car (if the gear change is in F) Regarding claim 8, as broadly claimed, if the brake pedal 7 is the first pedal, and the gear shift is in reverse, then the second pedal (6) controls rearward movement. Regarding claims 9 and 13, the controller is programmable and includes mapping structures (as taught in col. 2, line 1-5 and Figure 6f.) Regarding claim 14, if the brake pedal is the first pedal, then a brake is also operatively connected to the first pedal (see col. 3, lines 36-40.) Regarding claim 12, also taught is a cruise control function (see col. 3, line 46-col. 4, line 5.) Regarding claim 10, as best understood, jerk is controlled (see col. 6, lines 19-41.) As taught throughout, the prime

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move is a hydrostatic transmission, or continuously variable. Regarding claim 25, as broadly claimed, when the shift is in reverse, the brake pedal control signal can control forward motion, that is the deceleration of the vehicle, and the accelerator pedal controls rearward motion of the vehicle.

#### Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yost, Swisher, Jr et al., Geis, Carman et al., Rogers, Elsner, Martini et al., Duncan et al., Wilmo, Gollner, Stewart, Brandt et al., Erickson et al., Taylor et al., Swick et al., and Reimers et al. teach operator interface systems with pedal mechanisms of interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth Ilan whose telephone number is 703-306-5956. The examiner can normally be reached on Monday-Friday, 8:30-5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

RI July 25, 2003 Ruth Ilan Examiner Art Unit 3616

> Puth Ilan 7/25/03